

Fuel Poverty – Instruments and Approaches in the Netherlands

FES-Expert Conference ‘Instruments and Approaches to Protect Vulnerable Consumers from Energy Poverty’

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Introduction

- PEEC: *Promoting Energy Efficient Consumption to Combat Fuel Poverty* (November 2015 – January 2017)
- Comparative analysis of fuel poverty approaches in The Netherlands:
 - To what extent do these interventions lead to behavioural change?
 - To what extent do they contribute to energy efficiency (estimated impact in € and kWh)?
 - What are key success factors and pitfalls?
- National research funding TKI-STEM (Ministry of Economic Affairs).



Fuel Poverty in The Netherlands

- Minimum Income Standard definition (Moore, 2012) – aligning with the Dutch official indicator of poverty, which is based on minimal ‘poverty budgets’ (SCP & CBS, 2014):

Energy costs > monthly disposable income – housing costs – minimum budgets

- Calculating fuel poverty using the MIS definition results in a fuel poverty level of about **10% of the households in the Netherlands**, translating to approximately **750,000 households** living in fuel poverty (Roelfsema, 2015; CBS, 2015).

Investigated Fuel Poverty approaches



	Energielegioen	Flex Prepaid	Energiebank NL	Vroeg Eropaf	Energiebox
Location	Rotterdam	Nationwide	Arnhem (nation-wide rollout)	Amsterdam (city-wide rollout)	Utrecht
Scale	Approx. 165 households	(confidential)	45 households in phase 1	Approx. 25 households	Approx. 2,000 households
Information & Education					
Monetary incentive					
Non-monetary incentive					



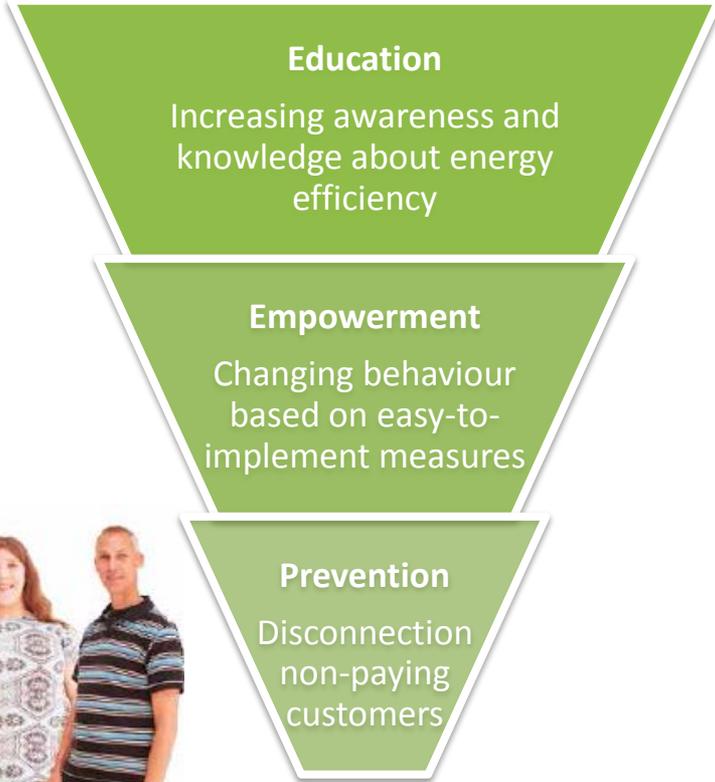
Methodology

	Energielegioen	Flex Prepaid	Energiebank NL	Vroeg Eropaf	Energiebox
Desk research	√	√	√	√	√
Metering data (smart meter)	-	√	(√) if available	-	-
Participant survey	√ (telephone) N= 64	√ (online) N= >200	To be decided	√ (telephone) N= >15	√ (telephone or online) N= >200
In-depth interview project manager	√	√	√	√	√
Focus group energy coaches	√	-	√	√	√
Participatory observations (home visits)	√	-	√	√	√
In-depth interviews households	-	√	To be decided	-	-

Energielegioen Rotterdam

Data collected:

- 12 participatory observations at audits (with 6 different energy coaches)
- 64 telephone interviews with households (1-6 weeks after the energy audit)
- Focus group 6 volunteers (energy coaches)
- In-depth interview project manager



Education
Increasing awareness and knowledge about energy efficiency

Empowerment
Changing behaviour based on easy-to-implement measures

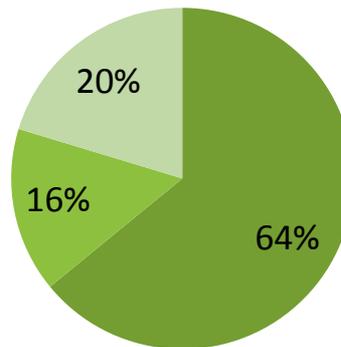
Prevention
Disconnection non-paying customers



Energielegioen Rotterdam: Survey results

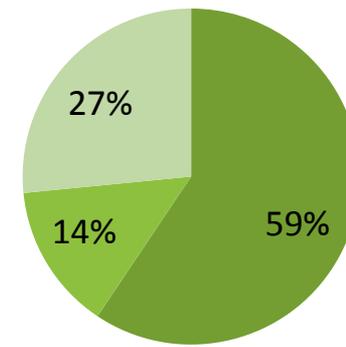
- Average respondent **age 65** (only 17% younger than 50)
- 56% **single households**, only 11% families with children.
- 86% **social housing** tenants.
- 48% report to be **aware** of their monthly energy costs.
- 95% state to better **understand the energy bill**.
- Average appreciation of the audit **7,4** (on 1-10 scale).

Was the energy audit useful for you?



■ yes, very useful
■ a little
■ no, not at all

Did the energy audit help you to act more energy efficient?



■ yes, very much
■ a little
■ no, not at all

Energielegioen Rotterdam: behavioural change



Overall, 24% of the survey respondents report behavioural change; another 17% are planning to take measures and/or to change their behaviour:

- 14% reports to take shorter or fewer showers.
- 9% reports to disconnect plugs (standby killers).
- 2 respondents got rid of domestic appliances and 9% intends to do so in the near future.
- Only 5% (3 respondents) reports to have installed simple insulation measures, whereas 76% states that such measures are not possible or are already installed at their house.

Energielegioen Rotterdam: Observing an energy audit



“William is a retired teacher, volunteering as an energy coach for the Energielegioen. He visits a man in his mid-fifties, who had been disconnected by his energy utility due to a history of payment problems. Currently he is supported by a budget coach and his son is paying his energy bills. He has difficulty walking and recently suffered from a TIA (stroke). The house is a mess. In the living room are four couches, most of them full of rubbish. Judging from the smell in the room, he is an excessive drinker. On the table are letters from the hospital, medication and a pile of bills.

The conversation starts awkwardly but both men seem at ease when they sit down together on the couch. Unfortunately, William lacks the social skills to really establish contact. His talking is long-winded and pedantic. Upon entering, he adapted his language, but gradually he starts using academic language again. However, the man is eager to lower his energy bill – also not to bother his son. He only turns on heating in the living room and opens all doors so the heat draws into the bedroom. Therefore, it is very hot in the living room. When William explains that the couch is blocking heat from the radiator, he responds: ‘Oh, then I will move the couch! No problem!’

*William does not succeed to get any other message across, and he forgets to show the energy saving materials (weather stripping, radiator foil, shower timer). Upon leaving, the man says: **‘I look forward to meeting you next time.’** Apparently, he does not understand that this is only a single visit audit.”*

Energiebox Utrecht



- **Professionally trained energy coaches** (from unemployment scheme), investigate over **50 items** in each household.
- Participating households receive a **box of energy saving goods and appliances**, and – if applicable – the coach shows how to install insulation materials.
- Each household receives a **written report** with hints, tips and proposed measures and estimated savings in €.
- On average, estimated **potential savings of € 210 per year** (if all recommendations are put into practice).
- Monitoring (JMA 2015, N=20) shows actual **annual savings of € 143 per household** as a result of the audit.
- PEEC data collection planned for April-June 2016.



Concluding remarks

- Practice based, applied research is necessary to obtain insight in *what works under which conditions*.
- Empowering low income households requires dedicated social and educational skills (in addition to technical knowledge).
- Further questions for our research:
 - How to actually reach fuel poverty target groups? To what extent are multi-problem families prone to participate in such schemes?
 - What type of coaching is effective to empower fuel poverty target groups?
 - Which combinations of incentives are effective?
- Results to be published in December 2016.

Thank you for your attention

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